



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/591,746	06/12/2000	Shun Zheng Yu	4555-103 US	3607

7590

04/21/2004

Diane Dunn McKay  
Mathews Collins Shepherd & Gould PA  
100 Thanet Circle  
Suite 306  
Princeton, NJ 08540

EXAMINER

DINH, KHANH Q

ART UNIT	PAPER NUMBER
----------	--------------

2151

6

DATE MAILED: 04/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/591,746

Applicant(s)

YU ET AL.

Examiner

Khanh Dinh

Art Unit

2151

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-29 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 15-29 is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

Art Unit: 2151

**DETAILED ACTION**

1. This is in response to the Amendment filed on 2/13/2004 (paper # 4). Claims 1-29 are presented for examination.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1-6, 10 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by Boyle et al., US pat. No.6,119,167.

As to claim 1, Boyle discloses a method for providing at least one pull service (156 fig.1) and at least one push service (138 fig.1) to a plurality of mobile users (120.1 and 120.2 fig.1) comprising the steps of:

Art Unit: 2151

reducing access latency for said at least one pull service running on at least one Web server (WWW server 130.1 or 130.2 of fig.1) by prefetching documents (HTML documents, see col.5 lines 3-57) into a cache of at least one proxy gateway (150 fig.1, col.6 lines 25-61) to said plurality of mobile users (138 or 156 fig.1) by using *at least* one factor relating to a frequency of access to said pull content of said pull service, an update cycle of said pull content (using a stock quote service to push the price of a selected stock when the price changes and providing the latest version of data in browser proxy, col.7 line 23 to col.8 line 34), said at least one proxy gateway (150 fig.1) connected between said mobile user (138 fig.1) and said Web server (130 fig.1).

iteratively estimating a state of each of said plurality of mobile users (allowing users to specify preferences for data-push) for determining push content to be forwarded to said mobile user by said at least one push service running on said at least one Web server (see fig.2, col.9 line 7 to col.10 line 65 and col.11 lines 9-58).

As to claim 2, Boyle discloses pull content is plurality of documents (URL contents) and said step of reducing access latency comprises the step of selecting a predetermined number of documents to be prefetched into said cache of said proxy gateway, wherein said predetermined number of documents have the greatest reduction in said access latency (balancing the latency and the cost of data access, see col.11 line 9 to col.12 line 50 and col.13 lines 24-60).

Art Unit: 2151

As to claim 3, Boyle discloses using factor of said frequency of access wherein frequently accessed documents are prioritized for being stored in a cache of a proxy gateway (using push and pull operations, see fig.2, col.11 lines 9-58 and col.12 line 34 to col.13 line 48).

As to claim 4, Boyle discloses using factor of said update cycle wherein said pull documents having a shorter update cycle are prioritized for being stored into a cache of a proxy gateway said proxy gateway (see fig.2, col.11 lines 9-63 and col.12 line 34 to col.13 line 48).

A to claim 5, Boyle discloses using factor of said response delay (delay between delivery cycles) wherein said pull documents having a longer response delay are prioritized for being stored in a cache of a proxy gateway (see fig.8, col.11 lines 9-63 and col.25 line 62 to ocl.26 line 64).

As to claim 6, Boyle discloses selecting a predetermined number of documents to be prefetched into cache of a proxy gateway, and said step of selecting a predetermined number of documents uses said factors, said frequency of access, said update cycle and said response delay (delay between delivery cycles), wherein said frequently accessed pull documents having a shorter update cycle and a longer response delay are prioritized for being prefetched in said cache of said proxy gateway (see fig.8, col.11 lines 9-63 and col.25 line 62 to ocl.26 line 64).

Claims 10 and 11 are rejected for the same reasons set forth in claims 1 and 2 respectively.

Art Unit: 2151

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 7-9 and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boyle et al., US pat. No.6,119,167 in view of Fernandez et al., US pat. No.6,697,103.

As to claims 7-9 and 12-14, Boyle's teachings still applied as in item 3 above. Boyle does not specifically disclose tracking data of a plurality of mobile users and geo-location measurement and behavior observation data, caching mobility and behavior-related content and at least one of the following factors: location of said one of said plurality of mobile users, direction of said one of said plurality of mobile users, speed of said one of said plurality of mobile users, and behavior of said one of plurality of mobile users. However, Fernandez discloses tracking data of a plurality of mobile users and geo-location measurement (monitoring and predicting data processing in a mobile network of one or more remote or local objects) and behavior

Art Unit: 2151

observation data, caching mobility and behavior-related content and at least one of the following factors: location of said one of said plurality of mobile users, direction of said one of said plurality of mobile users, speed of said one of said plurality of mobile users, and behavior of said one of plurality of mobile users (using GPS calculation to determine the location of the target units/movable objects such as cellular phones and providing data information accordingly, see abstract, figs.1, 2, col.2 lines 11-48, col.3 line 17 to col.4 line 42 and col.5 line 1 to col.6 line 49). It would have been obvious to one of the ordinary skill in the art at the time the invention was made to implement Fernandez's teachings into the computer system of Boyle to monitor remote objects because it would have tracked object data status information, correlated movement activity from different sources and maintained system security access in a communications network (see Fernandez's col.5 line 46 to col.6 line 15).

***Allowable Subject Matter***

6. Claims 15-29 allowed.

**Other prior art cited**

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. Herz, US pat. No.6,029,195.

***Response to Arguments***

8. Applicant's arguments with respect to claims 1-14 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

9. Claims 1-14 are *rejected*.

10. Claims 15-29 are allowed.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh Dinh whose telephone number is (703) 308-8528. The examiner can normally be reached on Monday through Friday from 8:00 A.m. to 5:00 P.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess, can be reached on (703) 305-4792. The fax phone numbers for this group are:

Official: (703) 872-9306

Non-Official/ Draft: (703) 746-5510

*A shortened statutory period for reply is set to expire THREE months from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned (35 U. S. C. Sect. 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(A).*

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305 -9600.

  
FRANTZ B. JEAN  
PRIMARY EXAMINER